Sperm preservation and lyophilization technologies that support highly affordable genetically enhanced or also genetically optimized tissue cultured sperm being available at grocery stores, pharmacies, minimarts, and online retailers:

At sperm bank sperm it would be highly beneficial to know the genetic contents of a single sperm before it was used for fertilization, and to be able to sort a diluted ejacualte into separate fractions each with different desiable genetics so that the sperm bank client can choose to get the largest number of her criteria (longevity, intelligence, beauty, others) simultaneously; DNA is all coiled up at a sperm,

Density gradient sperm sorting or flow cytometry sperm sorting is described

at wikipedia as being 90% effective at producing all female sperm; Another technology that might do this could be called narrow egg carton sperm sorting; I perceive female chromosome bearing sperm are physically slightly larger than Y containing sperm; A two layer laminated thing, with one layer being a gel polymer with fallopian tube and egg scent/flavor added to it, then with a depthy filter, similar to an egg carton placed on top of it is able to allow only those sperm that fit through the egg carton holes to reach the flavor layer; the flavor layer also has a sperm terminating chemical like nonoxynol 9 (or something better), so, larger sperm while attarcted to the egg carton laminate cannot fit through the holes and bounce off of it, to continue seeking an opportunity to fertilize; noting that female sperm are

larger, if it is experimentally verified they are fertile and normal, the 99.99th percentile of largest sized sperm are likely to be disproportionately female, optimally 99%+ female, so with a plurality of very minute duopolymer egg carton Y chromosome sperm terminating assemblies, of perhaps 60-100 microns deep (from holes to scented poison) and at least 100 microns width and breadth, I am reminded of approximately 1x1mm pieces of edible glitter in various products; that is about 100 sperm terminating assemblies per mm², so 100,000 pieces of glitter in a sexual lubricant that sex selects to favor the conception of female babies would sequester and terminate 10 million sperm; as a typical ejaculate is near 60 million sperm it is better to have a system that can terminate up to 200

million sperm; one possibility is a poison and scent core, externally eggcrated entrance screen cellulose fibers that are embossed (made) while dry, then become viscid, slippery, and pleasant at a sexual lubricant when introduced into the vagina (some cellulose forms are gooey); The number of ingress and terminate pathway egg crates, each of which terminates 1 sperm, there could be at a 10% cellulose fiber solution, is likely to be a whole bunch, possibly more than several hundred million; an entire 14 grams (1/2 oz) of sexual lubricant might have a really really large amount of sperm terminating assemblies. Notably the 99.99 or 99.999th percentile of sperm largeness keeps them out of the egg crate assemblies and they can swim to reach the egg and fertilize it

A highly similar system can be produced that lasts all month, or several months, and is possibly 1-2 cents made from alibaba.com parts; A cervical cap is a polymer cup that fits over the cervix tightly enough to keep out all sperm, and can be worn all month, being taken out only for mestruation. Placing sorted sperm or also genetically enhanced sperm, or also genetically optimized sperm in a cervical cup and wearing it assures that sperm seeking the fallopian tubes and eggs will ne near the cervix and continuously available many days before ovulation, during ovulation and after ovulation, increasing the likeliness of getting pregnant; the 1 month or longer durability of the sperm is suggested by a published thing that I think actually said that at microencapsulated live sperm they had 100% viability after 30 days (but

were cooled 15C), that suggests that even if 5% of the sperm survive a month at body temperature in the microcapsule, getting pregnant all month is possible; The emphasis here is convenience and getting to skip keeping track of calenders, you just pop it in and it works. That is also particularly beneficial for people getting sperm bank sperm; the sperm arrives in a cervical cap, you let the cervical cap thaw for 40 minutes, pop it in and you have done your part to get pregnant for the month, additionally as a cervical cap is contraceptive to sperm outside of of it, you can have sex with your exisitng partners and lovers as usual and still get pregnant with the sperm bank sperm; another benefit from having the sperm right next to the cervical canal is that it likely takes just a few well positioned microliters to cause a

pregnancy, making particularly gifted donors able to donate to thousands (2MI = 2000 microliters)

A technology that increases the number of sperm that make it up the cervix toget nearer the egg is using a proteolytic (protein dissolving) enzyme that only effects mucoproteins like those found in cervical mucous, as part of the technology these proteolytic enzymes do not have an effect on the sperm, It may be that full mucolysis (all the mucous gone) is less than say 80% of the mucous dissolved

A further technology that could assist the sperm in reaching the egg is making the sperm's chemoreception (smelling ability) better; antibodies, tail proteins, two sample chemoreceptors

It might be possible

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Three systems that could actually look at the genes in the sperm while maintain sperm fertility and motility are 1) quantum camera 2) something a little like a deuterated primer (1/2 DNA ladder) attached to a quantum dot 3) A nestling custom protein with

an IR spectroscopy spectrum, 4) has anybody tried laser tweezers that shine through a sperm to move around the things inside the sperm

Identicality, then dissasemble sample, might work, maybe sperm are clonal, if you have 32 identicals and know it you can gene sequence on and extrapolate to the remaining 31